Remarks

Entry of the amendments, reconsideration of the application, as amended, and allowance of all pending claims are respectfully requested. With the above amendments, claims 1-3, 5, 7, 9-18, 20-26 and 28-33 are pending.

The above amendments are provided in a bona fide attempt to advance prosecution of this application and not in acquiescence to the rejections. In particular, independent claims 1, 16, 23 and 24 have been amended to further define the grouping of the storage media, and the dependent claims have been amended to be consistent with the independent claims. Further, claims 31-33 have been added. Support for the amendments may be found in the claims themselves, as well as in the specification (e.g., FIG. 2, paragraphs 31, 42, 43, 45 and 49). Thus, no new matter is added.

In the Office Action, dated April 12, 2006, claims 13, 15, 21 and 29 are indicated as allowable, if rewritten in independent form. Applicants gratefully acknowledge the indication of allowability of those claims. However, at this time, applicants have not rewritten those claims in independent form, but reserve the right to do so. Additionally, claims 1-3, 5, 7-12, 14, 16-20, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bandera et al. (U.S. Patent No. 6,223,252); and claims 24-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandera et al. Applicants respectfully, but most strenuously, traverse these rejections for the reasons below to any extent deemed applicable to the amended claims.

Applicants' invention is directed, in one aspect, to the selection of storage media to be placed in a group of storage media, such that the group of storage media includes those storage media that meet a particular chosen criteria. For example, criteria relating to performance and/or reliability of the storage media is chosen. Then, media meeting that criteria are selected to be grouped together. In this manner, the group includes a selected number of media meeting the criteria and excludes media not meeting the criteria.

In one particular example (e.g., independent claim 1), applicants recite a method of grouping storage media. The method includes, for instance, obtaining parameter information

for one or more parameters associated with a plurality of storage media; choosing at least one parameter of the one or more parameters as desired criteria to be used in grouping storage media, said at least one parameter being associated with at least one of performance of a storage medium and reliability of a storage medium; and selecting one or more storage medium of the plurality of storage media to be included in a storage media group, said one or more selected storage medium having the desired criteria. Thus, in this aspect of applicants' claimed invention, a group of storage media is provided that includes storage media meeting a desired criteria. That is, the storage media included in the group are specifically selected to be in the group and the selection is based on meeting specific criteria relating to performance and/or reliability. This is very different from the teachings of Bandera.

Bandera is concerned with the managing of hot spares and not in the selection of particular media to be included in a group of media, as claimed by applicants. In Bandera, a hot spare is made available to an array of drives. The hot spare is configured to mirror one of the drives within the array. In particular, the hot spare mirrors the drive believed most likely to fail. However, there is no description, teaching or suggestion in Bandera of which particular drives of a plurality of drives are to be included in the group. There is no description, teaching or suggestion in Bandera of choosing at least one parameter as desired criteria and using that criteria to select the drives to be placed in a group. Bandera is silent as to how the array is configured. That is, Bandera does not look at the individual characteristics of the drives, and select, based on those characteristics, the drives to be placed in a particular array. Instead, Bandera is concerned with having a hot spare mirror a drive. Even as to the hot spare, Bandera does not describe looking at the characteristics of various hot spares and selecting this particular hot spare to be the mirror. In Bandera, the hot spare might be just as likely to fail as the drive it is mirroring.

Again with applicants' invention, there may be, for instance, a thousand drives and certain drives of the thousand drives are selected to be placed in a particular group based on those certain drives having desired criteria relating to performance and/or reliability. For instance, the desired criteria may be an average access of time of x ms. The plurality of storage media is searched for a number (e.g., 5) of storage media having an average access

time of x ms. Those five drives found that have an average access time of x ms are then grouped together. This is not described, taught or suggested in Bandera.

Since Bandera fails to describe, teach or suggest at least applicants' claimed elements of choosing at least one parameter of the one or more parameters as desired criteria to be used in grouping storage media, the at least one parameter being associated with at least one of performance and reliability, and selecting one or more storage medium of a plurality of storage media to be included in the storage media group, the one or more selected storage medium having the desired criteria, Bandera does not anticipate nor render obvious applicants' claimed invention. Thus, applicants respectfully request an indication of allowability for independent claims 1, 16, 23 and 24.

Further, the dependent claims are patentable for the same reasons as the independent claims from which they depend, as well as for their own additional features. For example, dependent claim 31 recites that the performance of the storage medium comprises an amount of time to access data of the storage medium. This is not described, taught or suggested in Bandera. There is no description in Bandera of managing hot spares based on the amount of time to access data of the storage medium. Access time is not described, taught or suggested in Bandera, and therefore, the use of access time as described in applicants' claimed invention is not anticipated nor rendered obvious by Bandera. For at least this reason, applicants respectfully submit that claim 31 is patentable over Bandera.

In addition to the above, applicants respectfully submit that independent claim 33 is also patentable over the teachings of Bandera. Independent claim 33 recites a method of grouping storage media, in which the method includes, for instance, obtaining parameter information for one or more parameters associated with the plurality of storage media; and grouping at least a portion of storage media of the plurality of storage media into one or more groups of storage media based on at least one parameter of the one or more parameters, wherein said at least one parameter is associated with performance of a storage medium, the performance comprising an amount of time to access data of the storage medium. This is not described, taught or suggested in Bandera.

Applicants respectfully submit that Bandera does not describe, teach or suggest grouping of storage media based on performance. In particular, Bandera makes no mention of access time, and specifically makes no mention of grouping storage media based on performance of the storage medium, wherein that performance includes an amount of time to access data of the storage media. Since Bandera is silent as to this feature, applicants respectfully submit that Bandera does not anticipate nor render obvious applicants' claimed invention.

For all of the above reasons, applicants respectfully request an indication of allowability for all pending claims.

Applicants respectfully request that if the Examiner still has concerns regarding this application, that he contact applicants' attorney at the below listed number. Thank you.

Respectfully submitted,

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